

04/07/00
JC777 U.S. PTO

04-10-00

A

Please type a plus sign (+) inside this box → ☒

Approved for use through 09/30/2000. OMB 0651-0032
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 C.F.R. § 1.53(b))

Attorney Docket No. _____
First Inventor or Application Identifier **Charles G. Heisinger, Jr.**
Title **Method and System for Telephonically Selecting, Addressing, and Distributing Messages**
Express Mail Label No. **EK251402057US**

APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

- ☒ * Fee Transmittal Form (e.g., PTO/SB/17)
(Submit an original and a duplicate for fee processing)
- ☒ Specification [Total Pages **28**]
(preferred arrangement set forth below)
 - Descriptive title of the invention
 - Cross References to Related Applications
 - Statement Regarding Fed sponsored R & D
 - Reference to Microfiche Appendix
 - Background of the invention
 - Brief Summary of the invention
 - Brief Description of the Drawings (if filed)
 - Detailed Description
 - Claim(s)
 - Abstract of the Disclosure
- ☒ Drawing(s) (35 U.S.C. 113) [Total Sheets **6**]
- Oath or Declaration [Total Pages **2**]
 - ☒ Newly executed (original or copy)
 - ☐ Copy from a prior application (37 C.F.R. § 1.63(d))
(for continuation/divisional with Box 16 completed)
 - ☐ DELETION OF INVENTOR(S)
Signed statement attached deleting inventor(s) named in the prior application, see 37 C.F.R. §§ 1.63(d)(2) and 1.33(b).

* NOTE FOR ITEMS 1 & 13: IN ORDER TO BE ENTITLED TO PAY SMALL ENTITY FEES, A SMALL ENTITY STATEMENT IS REQUIRED (37 C.F.R. § 1.27), EXCEPT IF ONE FILED IN A PRIOR APPLICATION IS RELIED UPON (37 C.F.R. § 1.28).

ADDRESS TO: Assistant Commissioner for Patents
Box Patent Application
Washington, DC 20231

- ☐ Microfiche Computer Program (Appendix)
- Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary)
 - ☐ Computer Readable Copy
 - ☐ Paper Copy (identical to computer copy)
 - ☐ Statement verifying identity of above copies

ACCOMPANYING APPLICATION PARTS

- ☐ Assignment Papers (cover sheet & document(s))
- ☐ 37 C.F.R. § 3.73(b) Statement of Power of Attorney (when there is an assignee)
- ☐ English Translation Document (if applicable)
- ☐ Information Disclosure Statement (IDS)/PTO-1449 [Copies of IDS Citations]
- ☐ Preliminary Amendment
- ☒ Return Receipt Postcard (MPEP 503)
(Should be specifically itemized)
- ☒ * Small Entity Statement(s) filed in prior application, Status still proper and desired (PTO/SB/09-12)
- ☐ Certified Copy of Priority Document(s) (if foreign priority is claimed)
- Other: _____

16. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment:
- ☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No. _____ / _____
- Prior application information: Examiner _____ Group / Art Unit: _____

For CONTINUATION or DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 4b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

17. CORRESPONDENCE ADDRESS

☐ Customer Number or Bar Code Label [] or ☒ Correspondence address below
(Insert Customer No. or Attach bar code label here)

Name **Charles G. Heisinger, Jr.**

Address **1328 Washington Street**

City **Evanston** State **IL** Zip Code **60202**

Country **USA** Telephone **847-332-2188** Fax **847-332-2180**

Name (Print/Type) **Charles G. Heisinger, Jr.** Registration No. (Attorney/Agent) _____
Signature *Charles G. Heisinger* Date **4/7/2000**

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Box Patent Application, Washington, DC 20231.

JC658 U.S. PTO
09/545088
04/07/00

**STATEMENT CLAIMING SMALL ENTITY STATUS
(37 CFR 1.9(f) & 1.27(b))—INDEPENDENT INVENTOR**

Docket Number (Optional)

Applicant, ~~Patent and Trademark Office~~ Charles G. Heisinger, Jr.

Application or Patent No.: _____

Filed or Issued: Herewith

Title: Method and System for Telephonically Selecting, Addressing,
and Distributing Messages

As a below named inventor, I hereby state that I qualify as an independent inventor as defined in 37 CFR 1.9(c) for purposes of paying reduced fees to the Patent and Trademark Office described in:

- ☒ the specification filed herewith with title as listed above.
☐ the application identified above.
☐ the patent identified above.

I have not assigned, granted, conveyed, or licensed, and am under no obligation under contract or law to assign, grant, convey, or license, any rights in the invention to any person who would not qualify as an independent inventor under 37 CFR 1.9(c) if that person had made the invention, or to any concern which would not qualify as a small business concern under 37 CFR 1.9(d) or a nonprofit organization under 37 CFR 1.9(e).

Each person, concern, or organization to which I have assigned, granted, conveyed, or licensed or am under an obligation under contract or law to assign, grant, convey, or license any rights in the invention is listed below:

- ☒ No such person, concern, or organization exists.
☐ Each such person, concern, or organization is listed below.

Separate statements are required from each named person, concern, or organization having rights to the invention stating their status as small entities. (37 CFR 1.27)

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b))

Charles G. Heisinger, Jr.

NAME OF INVENTOR

NAME OF INVENTOR

NAME OF INVENTOR

Signature of inventor

Signature of inventor

Signature of inventor

Date

Date

Date

5

Patent Application of

10

Charles G. Heisinger, Jr.

for

TITLE: METHOD AND SYSTEM FOR TELEPHONICALLY SELECTING,
ADDRESSING, AND DISTRIBUTING MESSAGES

15

BACKGROUND

20

Field of the Invention

The present invention relates to a method and system for retrieving information in response to caller input from a telephone keypad and for delivering the information to an address specified by destination address information maintained through an Internet website and stored in a database, which is selected based on caller identification provided electronically with the inbound telephone call, and in a distribution means specified by the caller.

30

Description of Prior Art

At the present time, the applicant is unaware of any existing prior art method or system utilizing an Internet website as its registration and administration means and a database as its address routing means that would enable a user to respond to a

35

mass media advertisement or other announcement by simply dialing a phone number and entering a "keycode" (a code which identifies the particular advertisement offer), with the identification of the caller provided by the ANI (automatic number identification) of the calling phone.

To date, direct-response mass-media advertising has relied primarily on a variety of direct response methods, such as manned 800 numbers. These methods do not permit the responder to simply, quickly, and automatically specify how and by what means additional information will be sent to the responder. Where direct response requires payment information, this information must be located by the caller and correctly communicated over the phone, often a laborious and error-filled process.

When responding to an advertisement by accessing information on an interconnected network, such as the Internet, the user is required to have a certain amount of knowledge regarding an Internet website address, or URL--uniform resource locator, before the user can successfully access a particular website. If the user does not input the exact URL, punctuated correctly, access will be denied and the user will need to resort to a sometimes lengthy and laborious search process to determine the correct address for the site. Given the present volume of advertising which includes a brief mention of an advertiser's website address, remembering a particular advertisement for a site may be difficult, thereby decreasing the probability of further investigation of an advertiser's products or services. The demands of precise and accurate URL addressing as a requirement for accessing the Internet creates a barrier for most people to take full advantage of this information source.

Prior art systems overcome this problem through the use of Internet search engines to help users determine the correct URL for a website from a selection of sites that have been selected

based on key words. Once the user has input key words, summaries of websites and their associated URL's are presented for selection. By selecting a particular URL, the user is linked to the chosen website.

5

Internet and online service providers, such as AOL, may also offer keywords for advertisers to include in their ads. These keywords are theoretically easier for a user to remember than the www.website.com combination. Keywords, however, must be
10 remembered from the time the individual hears them to the time of Internet access, which in a majority of cases is not immediate. As URL's, keywords are also subject to spelling and punctuation mistakes.

15

SUMMARY

In accordance with the present invention, a method and system for telephonically selecting, addressing, and distributing messages is disclosed that uses an automatic process to handle the tasks
20 of creating and sending a message to an address that is stored in a database by a user through an Internet website. The body of the message is identified through use of a keycode, which is supplied by an advertiser or other promoter through a media channel, such as radio, TV, or print. Where the message
25 constitutes an order to purchase, the caller's payment information, such as a credit card number, may be transmitted as part of the message.

OBJECTS AND ADVANTAGES

30 It is therefore an object of the present invention to provide a method of utilizing automatic phone number identification and entered keycode information for direct response purposes in mass-media advertising.

It is yet another object of the present invention to provide a method for selecting, addressing, and distributing an electronic message through the convenience and use of a telephone.

- 5 It is yet another object of the present invention to provide a method to communicate user payment information to an advertiser as part of a purchase transaction.

10 It is yet another object of the present invention to provide a method for accessing specific Internet websites where the URL information may be provided to the user via fax, e-mail, postal mail, delayed voice mail, or accessed from a web site.

15 Yet another object of the present invention is to provide a convenient method of registration, administration, and maintenance of a user's address and payment information through an Internet website and a database accessed through said website.

20 Briefly, a method for accessing advertising messages through the use of a telephone and the associated dual tone multifrequency (DTMF) signals is disclosed. The preferred embodiment of the present invention provides a system that compares the ANI of an inbound telephone call with an address previously input by the user in a database through an Internet web site. Specific stored
25 messages are retrieved from a database by the user through the use of DTMF signals as generated from a telephone key pad. Upon receiving a DTMF signal with delivery information, the message is sent either via fax, email, postal mail, time-delayed voice mail, or stored on a data table which is accessible through a web site,
30 depending on the option specified by the user. Payment information, such as a credit card number, may be included with the message.

5 Yet another advantage of the present invention is that it provides accurate address and contact information, including, but not limited to, information about a website address.

Yet another advantage of the present invention is that it allows the user to communicate accurate payment information to an advertiser when the message is a purchase order.

Brief Description of the Drawings

Fig. 2 is a block diagram that shows call processing elements according to the present invention.

Fig. 3B is a diagrammatical view that shows the structure of an address data table according to the present invention.

Fig.s 4 & 5 are flow charts illustrating the step-by-step operation of one embodiment of the present invention.

Detailed Description of a Preferred Embodiment

As required, a detailed illustrative embodiment of the present invention is disclosed herein. However, telephone techniques, physical communications systems, data formats, operating systems, operating structures, and network environments in accordance with the present invention may be embodied in a wide variety of forms and modes, some of which may be quite different from those in the disclosed embodiment. Consequently, the specific structural and functional details disclosed herein are merely representative.

A system according to the present invention may be comprised of a multitude of scaleable sub-systems as follows--1) a communications server, such as a Sun Sparc Station 20 operating at 75 mhz with Solaris 2.4 optimized for communications or the equivalent and including distributed message databases run on Oracle 7 database management software or the equivalent, with the following peripherals: a bank of digital signal processors capable of interactive voice response, such as a Dialogic D/320SC or the equivalent with voice message software; 2) a Printer and SMTP (Simple Mail Transfer Protocol) Server, Sun Sparc Station 5 operating at 110 mhz or the equivalent, with email mailing software, connected directly to the Internet and a local printer, such as a Sun NeWSPrinter 20 or the equivalent, 3) a Fax Server, such as a Sparc Station 5 operating at 110 mhz or the equivalent, connected to a switch that is connected to a telephone network; 4) a router, such as a Cisco 2500 series router connecting all of the servers described thus far. The sub-system is connected, to a Wide Area Network (WAN), such as an ATM or Asynchronous Transfer Mode network or the equivalent. The WAN connects multiple sub-systems through a router, such as a Cisco 2500 series router, to a central address database server, such as a Sun SparcServer 1000E operating at 85 mhz or the equivalent. The database server features Oracle relational database management software, or the equivalent, and scalable 1 GB fast/wide SCSI disk drives in a Raid 5 storage configuration.

The database server is connected to an Internet Web server, such as a SparcStation 20 running at 75 mhz with Web Hosting Software, through a Common Gateway Interface program. The Internet Web Server is connected to the Internet. The network operating system is Sun Solaris or the equivalent. System administration is provided by a workstation connected to each sub-system.

Another embodiment of the present invention could exist in a PC environment--a PC with 500 Mhz Intel Pentium III CPU or the equivalent, with 512 K Cache, 128 meg of memory, 3 gigabytes of disk space, Internet software including an email program and web hosting software, Internet port and dedicated subscriber line or the equivalent, fax software, 56kb modem and dedicated fax line or the equivalent, digital signal processor capable of interactive voice response (Dialogic Proline/2 V or the equivalent) and telephone line, printer, Windows 2000 or the equivalent, and Relational Database Management System (RDBMS), such as Microsoft Access would suffice.

Referring to Fig. 1, one embodiment of the present invention is operated by a caller 100 using a telephone on a public switched telephone network 102 to dial into telephonic interfacing software and hardware on the communications server 104. The server 104 provides audio directions to the caller 100 and provides a number of options, which may be selected by the caller 100 through DTMF tones generated through the use of a telephone keypad. In this manner, the caller 100 is able to direct the communications server 104 to perform certain procedures. The procedures include accessing address data tables and files located on a database server 110. Data tables on this server 110 are maintained by Internet 114 access through an Internet Web Server 112. The procedures also include accessing message data tables and files located on the communications server 104. These files are updated from data tables on database server 110, which

is connected to the communications server 104 through a WAN 108 and routers 128 and 106.

One available procedure is to send an email message through a
 5 Printer & SMTP server (Simple Mail Transfer Protocol--outgoing
 mail server) 124 to the Internet 114. Another available action
 is to send a facsimile via fax server 116 through a switch 118
 and to a telephone network 120. Yet another option is to send a
 voice message through a switch 118 over a telephone network 120.
 10 Yet another option is to send a message to a data file on the
 Printer and SMTP Server 124 for later input to the US Postal
 printer 126. Yet another option is to send a message to the
 database server 110 for access from the Internet 114 through
 Internet Web Server 112.

15 Fig. 2 shows the call processing, message retrieval, and
 addressing function, without regard to the specific hardware on
 which the files and programs exist. An Interactive Voice Response
 System 202 guides a caller through a series of call menus via
 20 voice prompts and plays confirmations of DTMF tones which the
 caller enters from the caller's touch-tone keypad of a telephone
 200. The caller-generated DTMF tones are converted into ASCII
 values usually by the Interactive Voice Response system 202 and
 then stored by the CPU 204 in memory 210. In other embodiments,
 25 the conversion from DTMF tones to ASCII text is performed by
 either a modem with call-management features or by a voice modem
 and Telephone Application Program Interface, or TAPI, software.

The Interactive Voice Response System 202 responds to the inbound
 30 call ANI and caller's touch tone selection for distribution, or
 routing, instructions and initiates a look-up of the address data
 table 206. It retrieves the stored destination address
 information for the message. The Interactive Voice Response
 System 202 also responds to the caller's touch tone selection for
 35 the keycode of the desired document by directing the CPU 204 to

look up and retrieve the corresponding message file name in the message data table 208. Once the CPU 204 has located the selected message file and address, it routes the message file and destination address to either fax software 216 for faxing, an Internet email program 218 for transmission over the Internet as an email message, voice message software 212 for transmission over a telephone network, as an output data file 214 for later printing as postal mail, or as a datatable 220 for later access through a website. The CPU 204 will recognize an order to purchase message from the presence of an advertiser address in the message data table 208. The CPU 204 will create a second message including credit card information addressed to the advertiser.

Fig. 3A illustrates an Internet registration web page for entering user data into an address data table according to the present invention. The form requests the user name 300, an originating phone number 302, which serves as the primary index key for the address data table, and a pin # 304 for system security. The form requests an email address 306, a fax phone number 308, a voice phone number 310, a US postal address 312 including city, state and zip code information 314, and credit card number and expiration date information 315. These four address requests are destination addresses for the distributed messages. The credit card information is payment information for inclusion in purchase order message. The form can be submitted 316 to the Internet Web Server 112 and then on to the database server 110 for saving, or canceled 318 by clicking on the appropriate button.

Fig. 3B and 3C are views of data tables of a relational database according to the present invention.

Fig. 3B shows the structure of an address data table according to the present invention. The address data table 319 contains an

originating phone number as the primary key 320 and a delivery option as a secondary key 324. Together, these keys form a unique key index to the table. Additional columns in the address data table 319 include the pin # 322, the user name 325, credit card number 326, credit card expiration date 327, and the destination address 328. Each row of the table 319 is uniquely identified by a composite of the originating phone number 320 and delivery option 322.

Fig. 3C shows the structure of a message data table 329 according to the present invention. The primary key field of this table 329 is the keycode 330. The secondary key is the delivery option 332. Together, these keys form a unique key index for the table 329. Column 334 references the name of the message file. Column 336 indicates the address of the advertiser, where the message is a purchase order. Each row of the table 329 is uniquely identified by a composite of the keycode 330 and delivery option 332.

OPERATION

Registration and Storage of User Information on an Internet Website

Referring to Fig. 3A, to register as a user of the system, an individual must visit a web site and enter their name 300 and a calling or originating phone number 302 along with a pin # 304 on the registration web page 301. The individual must also input one or more of the following: an Internet e-mail address 306, a fax telephone number 308, voice phone number 310, or a US postal address 312 with city, state, and zip code information 314, and credit card number and expiration date 315. These addresses become the destination addresses for the information messages. Upon submission, the Internet Web Server uses a CGI program to

append the information to a row in the address data table 319 for each destination address that has been entered on the form. The primary key index of the address data table 319 is the originating phone number 320 and the secondary key index value is a delivery option 324 which is defined as follows: 1= Internet e-mail address and web site access, 2= fax phone number, 3= voice message phone number, 4= US Postal Address (including delimited city, state, and zipcode information). Each row of the address data table 319 contains a primary 320 and a secondary key index 324, a pin # 322, the user name 325, credit card number 326, credit card expiration date 327, and one destination address 328.

Creation of Information Message Content

Messages are created and loaded onto a database server 110 by advertisers and informational sponsors of the system. The messages may assume several different file formats, each suitable for a different method of distribution. For instance, one message may appear as ASCII text for emailing and as a tagged image file format, or .tif, for faxing. The messages may be loaded by over the Internet 114 and through the Internet Web Server 112 using a file transfer protocol (FTP) or by manual means, such as diskette. In addition to loading the formatted files, the message data table 208 must be appended with a row containing the following information: Keycode (Primary Key Index of the table) of the message 330, Delivery Option (Secondary Key Index of the table) 332, the file name of the formatted file 334, and the advertiser address 336. The data server 110 sends copies of the updated datatable 208 and the messages over the WAN 108 and routers 106 and 128 to the communications server 104, where identical distributed copies of the message datatable 208 and message files reside.

User Telephone Interface

Figs. 4 & 5 chart the steps necessary to operate a system according to the present invention. Users must register to use

the system. Step 400 is accomplished on an Internet registration web page form, where a user enters user information, an originating phone number, pin #, and desired destination addresses and credit card information. The Internet Web Server
5 sends this information to be appended to the address data table on the database server. In step 402, advertisers and suppliers of information content must upload their information files to the database server, either via the Internet or by other media, such as diskette. Copies of messages and the updated message table are
10 copied to the communications server.

Once the user has registered and the information providers have loaded their information content, the system is ready for operation. The caller obtains the system phone number and
15 Keycode from a mass-media advertisement or other announcement 404. The system phone number may be a local number, an 800 number, or even a 3 digit number along with an additional digit, such as 411 plus the #, or pound sign. In the case of a 411 number, the pound sign is known as a "cut-through" digit and
20 would "cut-through" a telephone company switch which is part of the Public Switched Telephone Network to access a computer server for the caller. The caller places a call to the system in step 406.

25 In step 408, the ANI, more commonly known as caller ID, will be transmitted at the beginning of the call to the Interactive Voice Response system and is stored in memory. The address data table is then looked-up to determine if the ANI exists as a Primary Key Index value 410. If it does not, the caller will be prompted to
30 enter a phone number which is a valid, registered, originating phone number and a valid pin # 412.

The Interactive Voice Response system, generates a voice prompt, asking the caller for a keycode associated with the information
35 that the caller desires 414. The caller inputs the keycode 416.

In step 418, the Interactive Voice Response system captures the DTMF keycode response and converts it to an ASCII value to be stored by the CPU in memory. The system will then prompt the caller for the desired means of distribution in step 500. The caller will indicate a choice represented by pressing a digit on the keypad in step 502. In step 504, the Interactive Voice Response system will capture the DTMF response and convert it to an ASCII value and direct the CPU to store the value in memory. The incoming call is then terminated 506. The CPU will select a destination address from a row of the address data table where the Primary Key Index Value is equal to the originating phone number in memory and the Secondary Key Index Value is equal to the Delivery Option 508. In step 510, the CPU selects the file name of the message by looking up the row in the message data table where the Primary Key Index Value is equal to the stored Keycode value and the Secondary Key Index Value is equal to the Delivery Option stored in memory. If the message data table contains an advertiser address, the message is considered a purchase order and a second message will be created with credit card information and addressed to the advertiser. The CPU determines the routing of the message from several conditional program statements 512, 514, and 516. Depending on the stored value of the delivery option, the destination address and a file stored in the communications server with the selected file name are sent to the input queue of one of the delivery software subsystems: the Internet email program and web site data table 518, the fax transmission software 520, voice message software 522, or the US Postal mail software 524. The send function of the appropriate delivery subsystem is then initiated: the SMTP Internet e-mail program 526, the fax transmission software 528, voice message software 530, or the US Postal mail software 532.

Conclusion, Ramifications, and Scope:

Accordingly, the reader will see that the method and system for telephonically selecting, addressing and distributing messages

described here represents a major enhancement for mass-media audiences to gain information about products, services, and information content.

5 Furthermore the present invention provides the following advantages:

- it permits convenient access to additional product news and information content, by means of the nearest telephone.

10

- it provides fast and easy access, through a minimal number of digits entered through a telephone keypad.

- it permits wide user choices in delivery of information.

15

- it permits easy and accurate purchasing capability for advertised goods and services.

20

- it yields accurate information in printed or verbal form, especially concerning website addresses.

- it provides non-human 24 hour, 7 day per week, means of registration and database updates.

25 Although the description above contains many specificities, these should not be construed as limiting the scope of the invention but as merely providing illustrations of some of the presently preferred embodiments of this invention. For example, the telephone may be wireless and the distribution methods may
30 include paging systems.

Thus, the scope of the invention should be determined by the appended claims and their legal equivalents, rather than by the examples given.

Charles G. Heisinger, Jr.

5 METHOD AND SYSTEM FOR TELEPHONICALLY SELECTING, ADDRESSING, AND
 DISTRIBUTING MESSAGES

I Claim:

10

1. A method of creating and addressing a message using a stored database of user information and a stored database of advertiser information comprising the steps of:

15

(a) receiving a user information request, including signal representations of originating user information and user-requested information;

20

(b) translating said signal representations, into a series of character representations comprising user information and into a series of character representations comprising user-requested advertiser information;

25

(c) storing said user information request, including said translated character representations comprising user information and said translated series of characters comprising user-requested advertiser information;

30

(d) retrieving message address information by comparing said stored character representations comprising user information with stored characters in said stored database of user information;

35

(e) retrieving message advertiser information by comparing said series of stored character representations comprising user-

requested advertiser information with stored characters in
said stored database of advertiser information;

(f) Creating a message by associating said retrieved message
5 address information with said retrieved message advertiser
information;

(g) Sending said message to appropriate transmission software
for transmission over a network;

10

whereby a user can direct advertising and other information
messages to a destination and network of the user's choosing.

15 2. The method as recited in claim 1 wherein said user information
request comprises identifying codes, or keycodes, obtained from
mass-media advertisements of other announcements.

20 3. The method as recited in claim 1 wherein said signal
representations comprise Dual Tone Multifrequency (DTMF) signals.

4. The method as recited in claim 1 wherein said signal
representations are digitally transmitted on a hybrid fiber/coax,
or HFC, system.

25

5. The method as recited in claim 1 wherein said signal
representations are digitally transmitted on a Voice over
Internet Protocol, or VoIP, system.

30 6. The method as recited in claim 1 wherein said signal
representations are digitally transmitted on a Packet Switched
Network.

7. The method as recited in claim 1 wherein said signal representations are digitally transmitted on a Public Switched Telephone Network.

5

8. The method as recited in claim 1 wherein said network comprises the Internet.

9. The method as recited in claim 1 wherein said network

10 comprises the Public Switch Telephone Network.

10. The method as recited in claim 1 wherein said network comprised a digital cable network.

15 11. The method as recited in claim 1 wherein said transmission software comprises Internet email software.

12. The method as recited in claim 1 wherein said transmission software comprises fax software.

20

13. The method as recited in claim 1 wherein said transmission software comprises voice message software.

14. The method as recited in claim 1 further providing

25 interactive voice response software that operatively communicates with said user information request for the purpose of soliciting said user information request and identifying said stored character representations.

30 15. The method as recited in claim 1 wherein said stored database of user information comprises a data table which includes a first column comprised of ANI values, also known as automatic number identification, and a second column comprised of pin numbers, and a third column comprised of corresponding delivery option code
35 indicators, and a fourth column comprised of destination

addresses, including Internet e-mail addresses, fax telephone numbers, phone numbers, and street address information, and a fifth column of payment information including a credit card number and a credit card expiration date.

5

16. The method as recited in claim 15 wherein said stored database of user information comprises a website input means by which a human operator, accessing an Internet website, enters said Internet email address, said fax phone numbers, said phone numbers, said pin numbers, said street address information and said payment information.

17. The method as recited in claim 15 wherein said stored database of advertiser information comprises a data table which includes a first column comprised of identifying characters, a second column comprised of delivery option code indicators, and a third column comprised of file names, and a fourth column of advertiser addresses.

18. A machine for creating and addressing a message using a stored database of user information and a stored database of advertiser information comprising:

(a) memory means for storing a user information request, including character representations comprising originating user information and a series of character representations comprising user-requested advertiser information;

(b) input means for inputting signal representations of user-requested advertiser information for translation and storage in said memory means;

(c) translation means for converting said signal representations into said character representations;

5 (d) pre-recorded interactive response means for identifying said characters representations input by input means and stored in said memory means;

10 (e) a memory controller means for:

comparing said stored character representations comprising user information with stored characters in said stored database of user information and retrieving message address information and;

15

comparing said series of stored characters comprising user-requested advertiser information with stored characters in said stored database of advertiser information and retrieving message advertiser information and;

20

creating a message by associating said message address information and said message advertiser information and;

25

sending said message through transmission software means to one of several available networks;

whereby a user can request that advertising and other information be sent to an address of the user's choosing.

30 19. The machine as recited in claim 18 wherein said user information request comprises identifying codes, or keycodes, obtained from mass-media advertisements of other announcements.

20. The machine as recited in claim 18 wherein said signal
35 representations comprise Dual Tone Multifrequency (DTMF) signals.

21. The machine as recited in claim 18 wherein said signal representations are digitally expressed on transmitted on a hybrid fiber/coax, or HFC, system.

5

22. The machine as recited in claim 18 wherein said signal representations are digitally transmitted on a Voice over Internet Protocol, or VoIP, system.

10

23. The machine as recited in claim 18 wherein said signal representations are digitally transmitted on Packet Switched Network.

15

24. The machine as recited in claim 18 wherein said signal representations are digitally transmitted on Public Switched Telephone Network.

20

25. The machine as recited in claim 18 wherein one of said available networks comprises the Internet.

26. The machine as recited in claim 18 wherein one of said available networks comprises the Public Switch Telephone Network.

25

27. The machine as recited in claim 18 wherein one of said available networks comprises a digital cable network.

28. The machine as recited in claim 18 wherein said transmission software means comprises Internet email software.

30

29. The machine as recited in claim 18 wherein said transmission software means comprises fax software.

35

30. The machine as recited in claim 18 wherein said transmission software means comprises voice message software.

31. The machine as recited in claim 18 wherein said stored
database of user information comprises a data table which
5 includes a first column comprised of ANI values, also known as
automatic number identification, and a second column comprised
pin numbers, a third column comprised of corresponding
delivery option code indicators, and a fourth column
10 comprised of destination addresses, including Internet e-mail
addresses, fax telephone numbers, phone numbers, and street
address information, and a fifth column comprised of payment
information, including credit card numbers and credit card
expiration dates.

32. The machine as recited in claim 31 wherein said stored
database of user information comprises a website input means
by which a human operator, accessing an Internet website,
enters said Internet email address, said fax phone numbers,
said phone numbers, said pin numbers, said street address
20 information, and said payment information.

33. The machine as recited in claim 18 wherein said stored
database of advertiser information comprises a data table
which includes a first column comprised of identifying
25 characters, a second column comprised of delivery option code
indicators, and a third column comprised of file names, and a
fourth column of advertiser addresses.

34. A machine for creating and addressing a message using a
30 stored database of user information and a stored database of
advertiser information comprising:

(a) memory which is able to store a user information request,
35 including character representations of originating user

information and a series of character representations of user-requested advertiser information;

(b) a telephony software and hardware by which a user sends
5 signal representations of user-requested advertiser
information for translation into said character
representations;

(c) a CPU, or central processing unit, which stores said
10 character representations in said memory;

(d) an interactive voice response system which is operatively
connected to said memory and to said CPU for soliciting said
user information request and identifying said characters
15 representations stored in said memory;

(e) a website registration page by which a human operator,
accessing an Internet website, enters an Internet email
address, fax phone numbers, phone numbers, street address
20 information, and payment information;

(f) a memory controller which:
compares said stored character representations comprising user
information with stored characters in said stored database of
25 user information and retrieves message address information and;

compares said series of stored characters comprising user-
requested advertiser information with stored characters in said
stored database of advertiser information and retrieves message
30 advertiser information and;

creates a message by associating said message address information
and said message advertiser information and;

35 sends said message to one of several available networks;

whereby a user can request that advertising and other information be sent to an address of the user's choosing.

- 5 35. A method of telephonically retrieving, addressing, and distributing messages, comprising:

10 (a) Providing a first data table for storing originating phone numbers as first primary key index values, delivery option numbers as first secondary key index values, pin numbers, and associated phone numbers, Internet email addresses, US postal addresses, and payment information;

15 (b) Storing said first primary and associated first secondary key index values and said originating phone numbers and said pin number and said associated phone numbers, Internet email, US postal addresses, and said payment information in said first data table which is accessed through an Internet web site;

20 (c) Providing a second data table for storing keycode values as second primary key index values and delivery option numbers as second secondary key index values, and associated formatted file names and associated advertiser addresses;

30 (d) Storing said second key index values and formatted file names and advertiser addresses in said second data table;

(e) Providing a first memory location to store formatted files referenced by said formatted file names in said second data table;

5

(f) Storing formatted files referenced by said formatted file names in said first memory location;

10

(g) Providing a voice means by which voice prompts can request a caller to take certain actions;

15

(h) Obtaining a system phone from a mass-media advertisement or other announcement;

20

(i) Calling said system phone number from an originating phone number;

25

(j) Providing a second memory location that can store automatic number identification of incoming call;

30

(k) Storing said automatic number identification of said incoming call corresponding to said originating phone number;

35

(l) Comparing said stored automatic number identification to said first primary key index values of said first data table to determine if said stored automatic number identification is equal to a first primary key index value;

(m) Requesting caller to manually enter a phone number, verified by a pin number, to replace said stored automatic number identification value where said stored automatic number identification of said incoming call does is not equal to a first primary key index value of said first data table;

(n) Providing a third memory location that can store keycode value;

(o) Requesting caller to enter said keycode value by said voice means;

(p) Entering said keycode value on a keypad;

(q) Converting a DTMF signal generated by entering said keycode into a character representation of said keycode;

(r) Storing said character representation of said keycode value in said third memory location;

(s) Providing a fourth memory location which can store a delivery option number value;

(t) Requesting caller to enter said delivery option number by said voice means;

(u) Entering said delivery option number on a keypad;

5

(v) Converting a DTMF signal generated by entering said delivery option number into a delivery option number value;

10

(w) Storing said delivery option number value in said fourth memory location;

15

(x) Terminating said incoming call;

20

(y) Selecting a destination address consisting of a phone number or address stored in a row of said first data table where a first primary key index value equals said stored originating automatic number identification value and a first secondary key index value equals said stored delivery option number value;

25

(z) Selecting a formatted file name stored in a row of second data table where a second primary key index value equals said stored keycode value and a second secondary key index value equals value of said stored delivery option number value;

30

(aa) Providing a delivery means with a send function which can transmit said address and formatted file onto a network or US Postal system;

35

(bb) Selecting a delivery means based on said stored
delivery option number value;

5

(cc) Loading said destination address and formatted
file referenced by formatted file name into an input
queue of said delivery means;

10

(dd) Initiating said send function of said delivery
means;

15 whereby a caller can telephonically direct advertising, other
information messages, and purchase orders to a fax or telephone
number, an Internet email address, an Internet web site, or a US
postal address of the caller's choosing.

20

End of Claims

FIG. 1

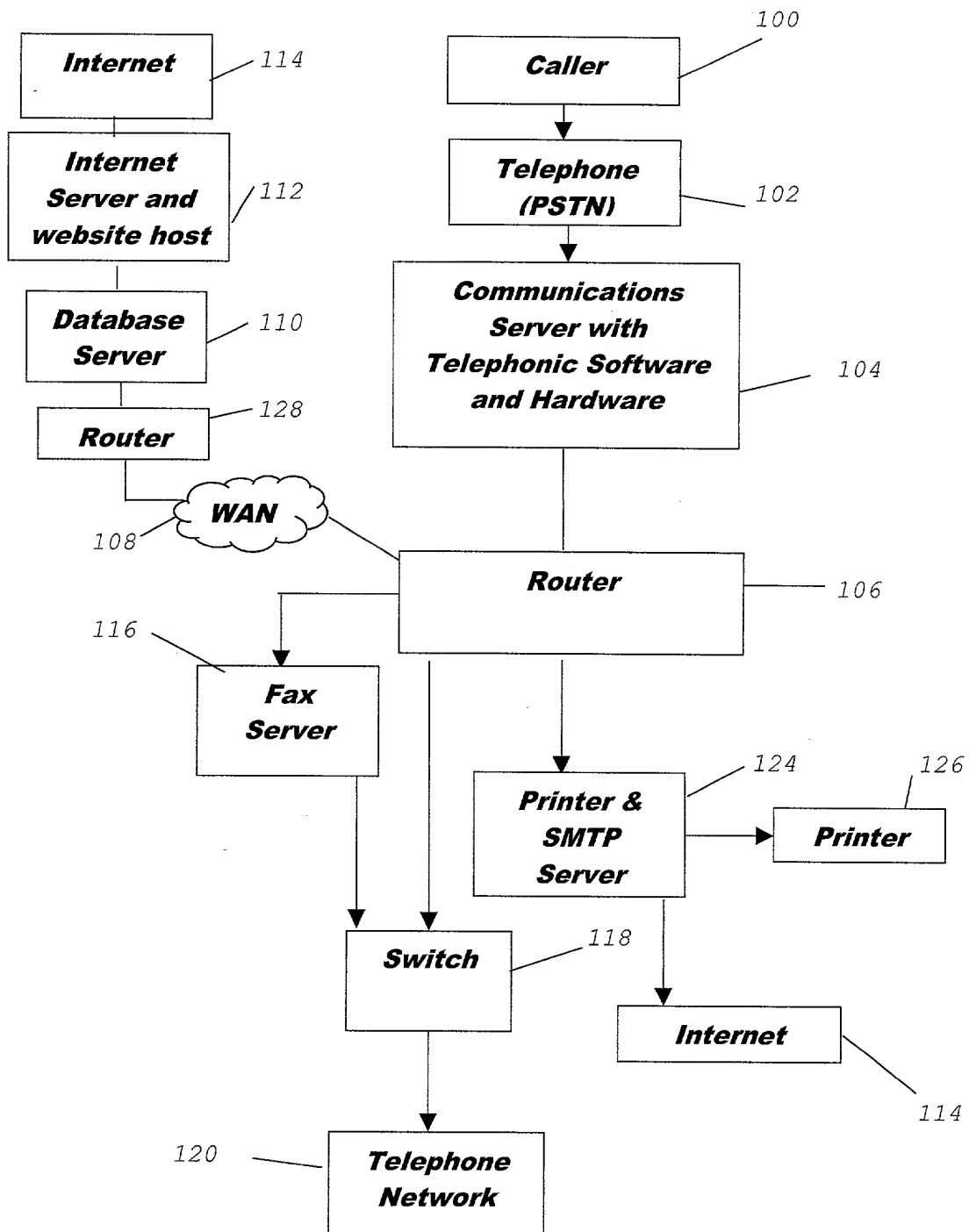


FIG. 2

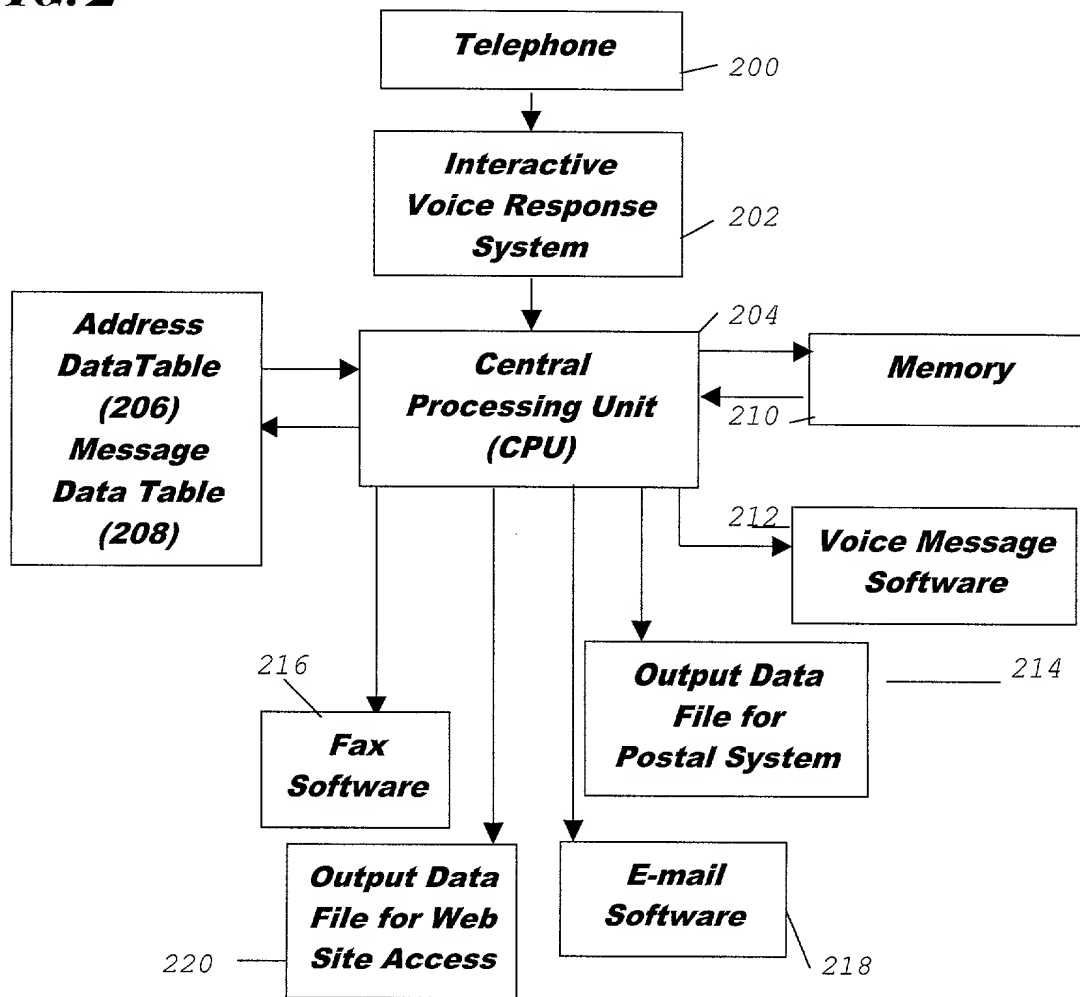


FIG. 3A

301

Internet Registration Web Page

1. To register, enter your name and your home, work, or cellular phone number as the originating phone number.

300

Name:

302

Originating Phone Number:

304

Pin # (req'd for remote access):

2. Enter addresses where you want your information sent:

306

Internet Email Address:

308

Fax Phone number:

310

Voice Phone number:

312

US Postal Address:

314

City, State Zip:

316

Credit Card No. **Expires**

315

Submit **Cancel** 318

FIG. 3B**Structure for Address Data Table**

319

Originating Phone Number (320) (Primary Key)	PIN # (322)	Delivery Option (324) (Second ary Key)	User Name (325)	Credit Card no. (326)	Exp. Date (327)	Destination Address (328)
3125551212	1234	1	Bob Smith	1234567890123456	0801	xyz@123.net
3125551212	1234	2	Bob Smith	1234567890123456	0801	3128765432

FIG. 4

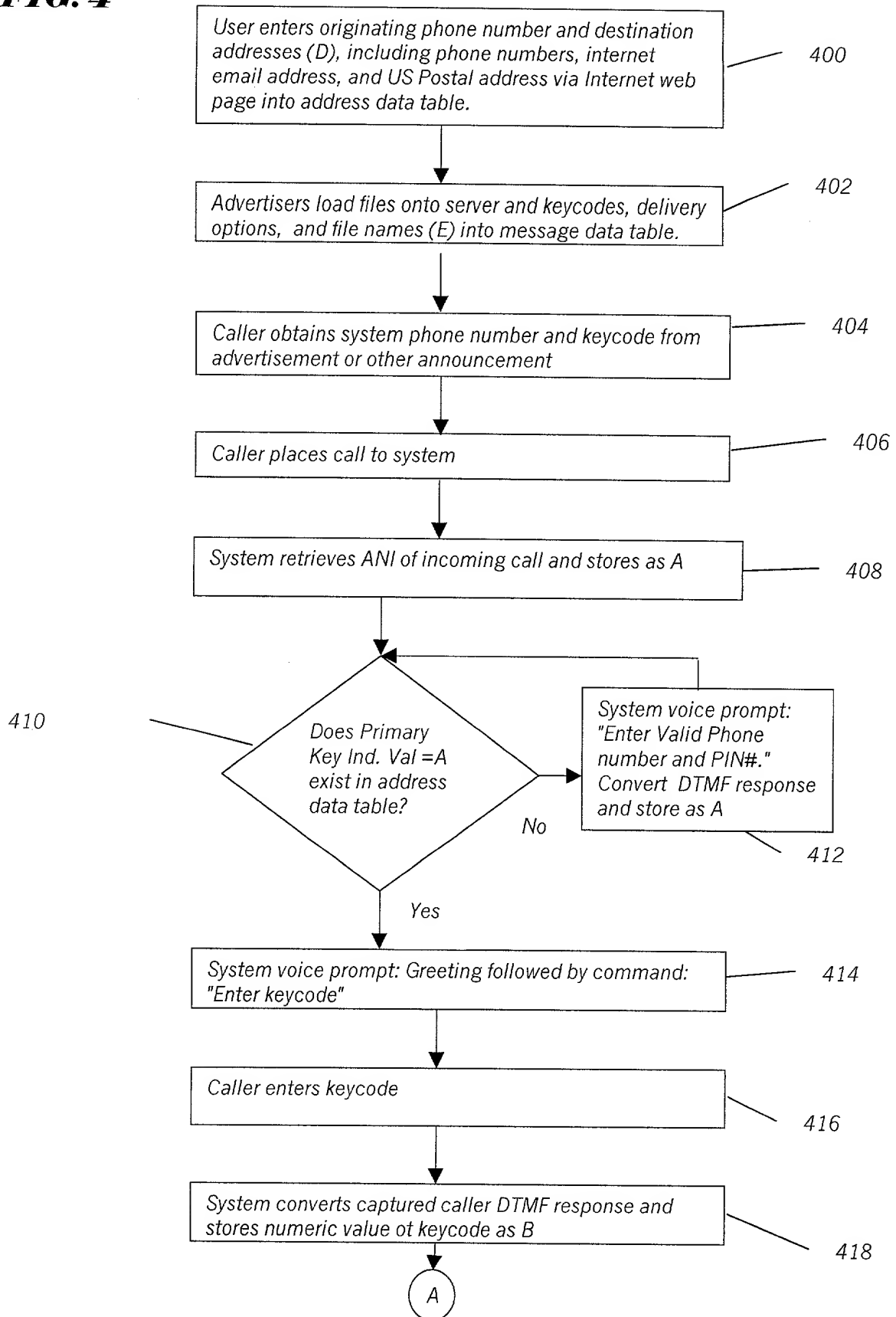
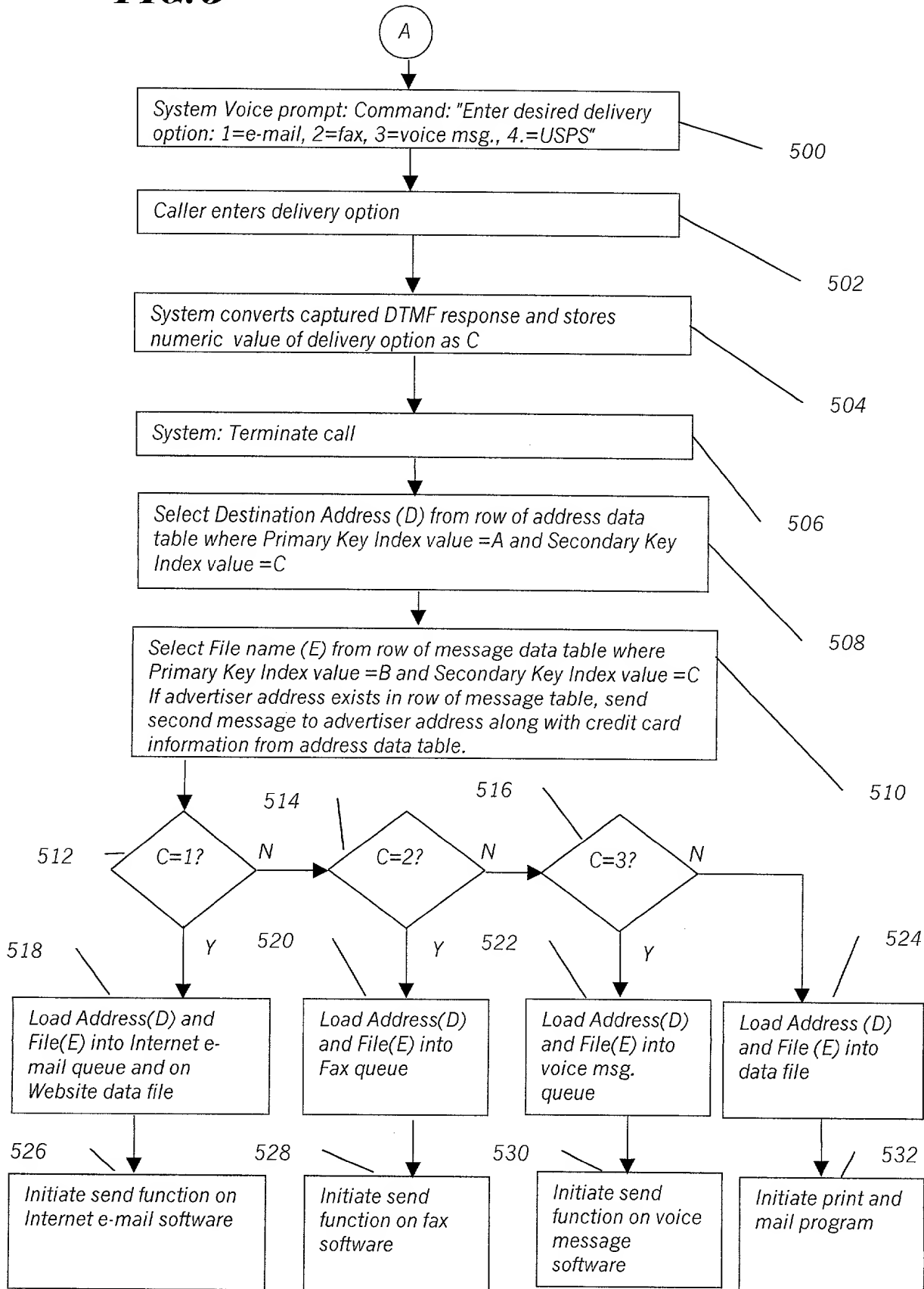


FIG. 5



Please type a plus sign (+) inside this box → ☐

PTO/SB/01 (12-97)
Approved for use through 9/30/00. OMB 0651-0032
Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63)	Attorney Docket Number	
	First Named Inventor	Charles G. Heisinger, Jr.
	COMPLETE IF KNOWN	
	Application Number	/
	Filing Date	
	Group Art Unit	
<input checked="" type="checkbox"/> Declaration Submitted with Initial Filing	OR	<input type="checkbox"/> Declaration Submitted after Initial Filing (surcharge (37 CFR 1.16 (e)) required)
	Examiner Name	

As a below named inventor, I hereby declare that:

My residence, post office address, and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

Method and System for Telephonically Selecting, Addressing, and Distributing Messages

the specification of which (Title of the Invention)

☒ is attached hereto
OR

☐ was filed on (MM/DD/YYYY) as United States Application Number or PCT International

Application Number and was amended on (MM/DD/YYYY) (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56.

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or 365(b) of any foreign application(s) for patent or inventor's certificate, or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or of any PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Not Claimed	Certified Copy Attached?	
				YES	NO
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

☐ Additional foreign application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto:

I hereby claim the benefit under 35 U.S.C. 119(e) of any United States provisional application(s) listed below.

Application Number(s)	Filing Date (MM/DD/YYYY)	<input type="checkbox"/> Additional provisional application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.

[Page 1 of 2]

Burden Hour Statement: This form is estimated to take 0.4 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box ☐

PTO/SB/01 (12-97)

Approved for use through 9/30/00. OMB 0651-0032
Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

DECLARATION— Utility or Design Patent Application

I hereby claim the benefit under 35 U.S.C. 120 of any United States application(s), or 365(c) of any PCT international application designating the United States of America, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of 35 U.S.C. 112, I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application.

U.S. Parent Application or PCT Parent Number	Parent Filing Date (MM/DD/YYYY)	Parent Patent Number (if applicable)

☐ Additional U.S. or PCT international application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.

As a named inventor, I hereby appoint the following registered practitioner(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

☐ Customer Number OR
☐ Registered practitioner(s) name/registration number listed below

Place Customer Number Bar Code Label here

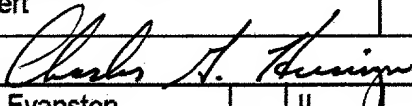
Name	Registration Number	Name	Registration Number

☐ Additional registered practitioner(s) named on supplemental Registered Practitioner Information sheet PTO/SB/02C attached hereto.

Direct all correspondence to: ☐ Customer Number or Bar Code Label OR ☒ Correspondence address below

Name	Charles G. Heisinger, Jr.				
Address	1328 Washington Street				
Address					
City	Evanston	IL	State	ZIP	60202
Country	USA	Telephone	847-332-2188	Fax	

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Name of Sole or First Inventor:		<input type="checkbox"/> A petition has been filed for this unsigned inventor			
Given Name (first and middle (if any))			Family Name or Surname		
Charles Gilbert			Heisinger, Jr.		
Inventor's Signature					Date
Residence: City	Evanston	State	IL	Country	USA
Post Office Address	1328 Washington Street				
Post Office Address					
City	Evanston	State	IL	ZIP	60202
Country	USA				

☐ Additional inventors are being named on the supplemental Additional Inventor(s) sheet(s) PTO/SB/02A attached hereto